



# **Metro East Public Realm Amenity Plan**

City of Santa Ana  
February 2007

# Table of Contents

<b>Introduction</b>	.....	2
Site and Planning Context		3
Metro East Public Realm Amenity Plan		4
<b>Existing Conditions</b>	Photo Survey .....	5
<b>Existing Conditions</b>	Base Map .....	14
Street Trees	Locations and Types	15
Street Lights	Locations and Types	21
<b>Existing Streetscapes</b>	Typical Plans and Sections .....	23
<b>MEMU Overlay Development Zone</b>	.....	28
<b>Metro East Public Realm Amenity Concept</b>	.....	30
Proposed Easements		31
Street Trees		32
Pedestrian Street Lighting		33
<b>Improved Streetscapes</b>	Typical Plans and Sections .....	34
<b>Cost Estimate</b>	.....	41



# Introduction

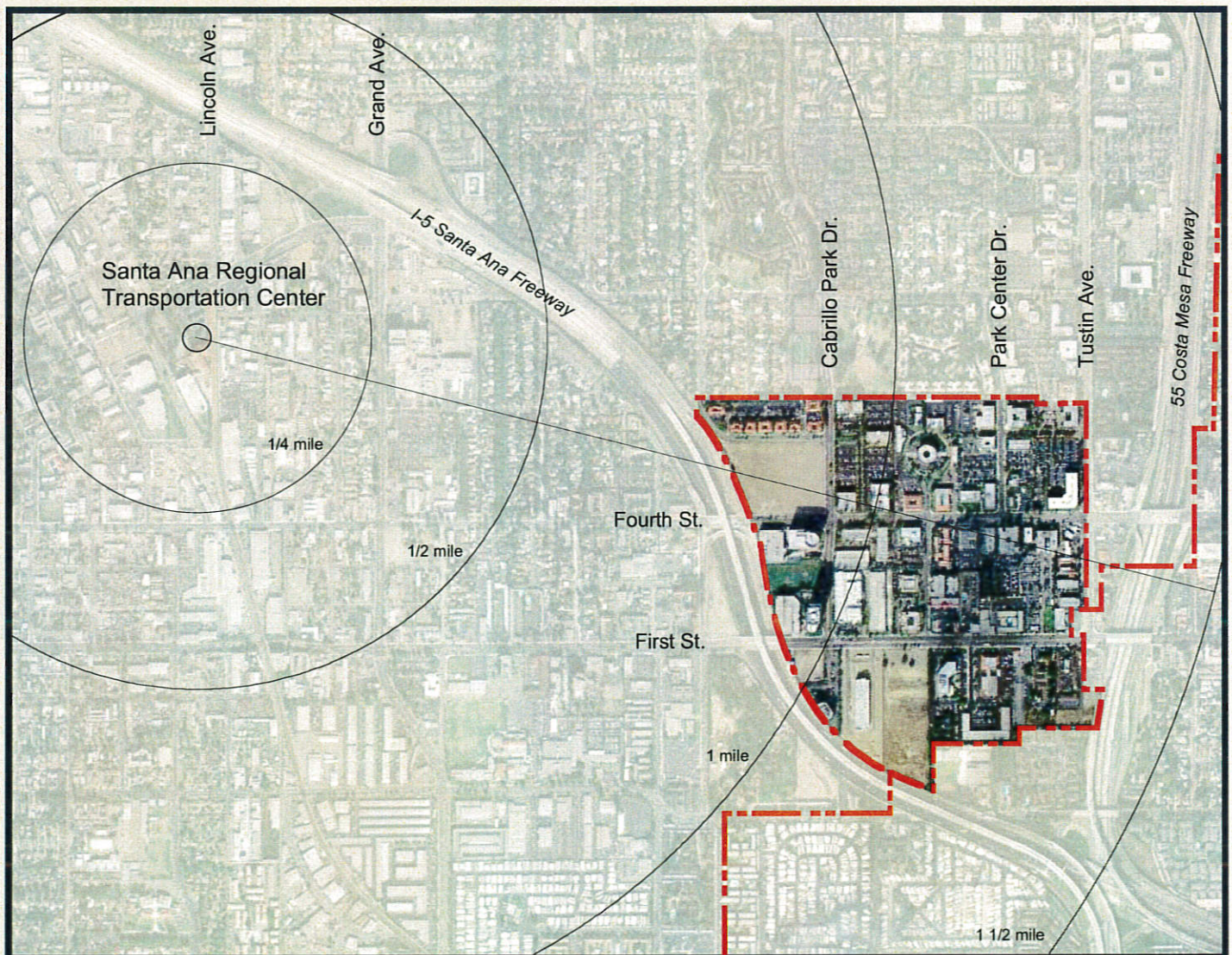
The Metro East Public Realm Amenity Plan is an outline of streetscape and open space improvements that reinforce the new uses proposed for the Metro East Mixed Use Overlay Zone. The improvements of this Plan are in addition to the normal infrastructure improvements that are consequent to new development. These improvements are proposed to ensure that the public realm complements and supports the introduction of residential uses into this formerly commercial area. Additional street trees, pedestrian scale lighting, district identity signs, water features, improvements to the character of Golden Circle Drive, and the acquisition of new open space amongst other improvements are all proposed to establish the amenities required to both attract and support quality residential and mixed use development. The goal of this public realm plan is to ensure that appropriate high quality streetscape and open space improvements are realized as this area emerges as a mixed-use urban village.



## Site and Planning Context

# 1.1

Bounded by the Santa Ana Freeway to the East and the Costa Mesa Freeway to the West, the Metro East district covers approximately 147 acres of land in the north-eastern corner of the City of Santa Ana.



### Key

- Study Area
- .-.- City Boundary

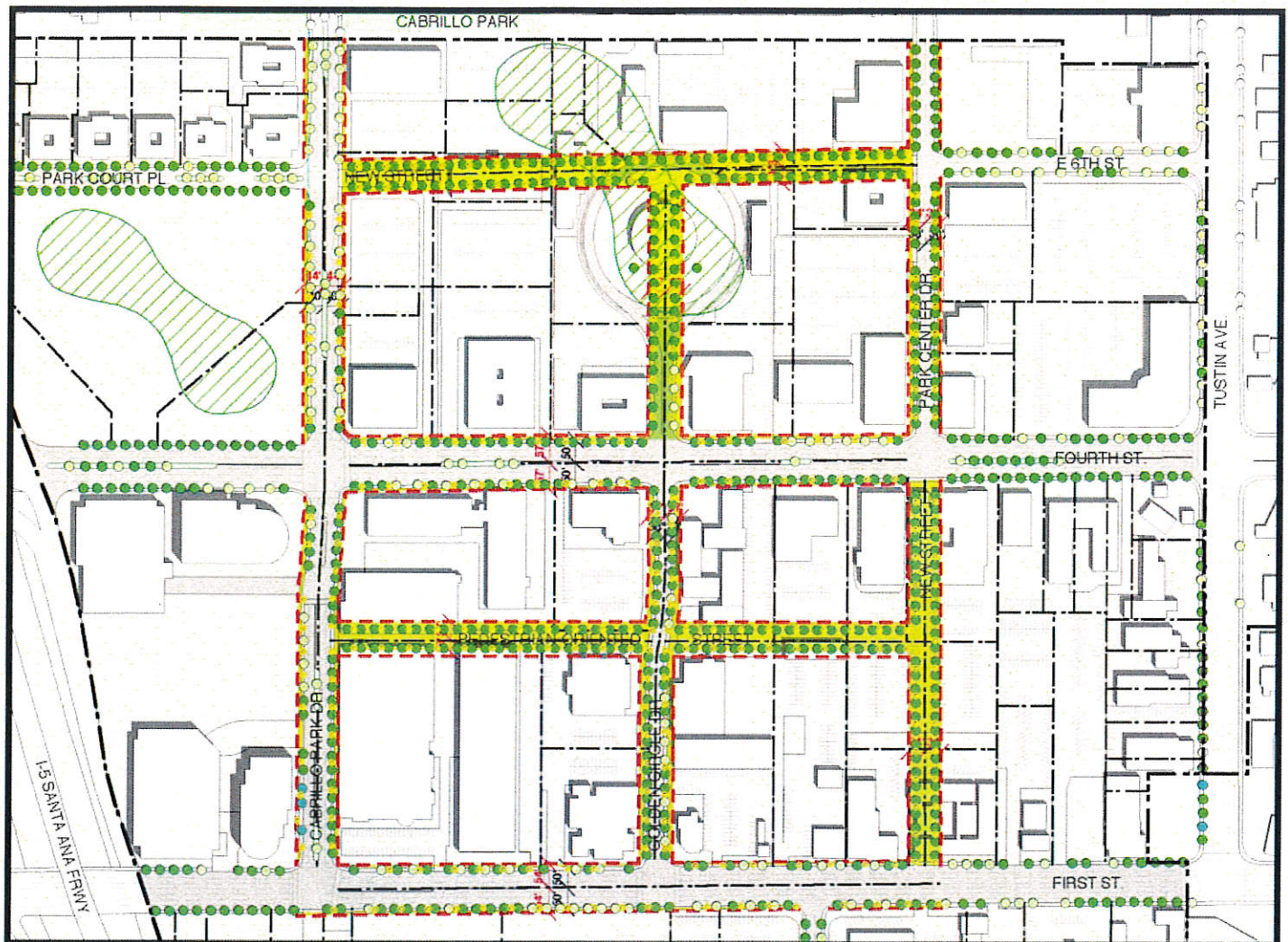
0 500 1000 FT





# Metro East Public Realm Amenity Plan

In conjunction with the Metro East Mixed-Use Overlay Zone, this amenity plan provides a framework from which to build a clear identity for the district.



## Key

- Study Area
- City Boundary
- Existing Parcel Lines
- Setback Lines
- Existing Streets
- Additional Setback Easements
- Public Open Space
- Existing Street Trees
- Existing Palm Trees
- New Street Trees
- New Pedestrian Street Lights

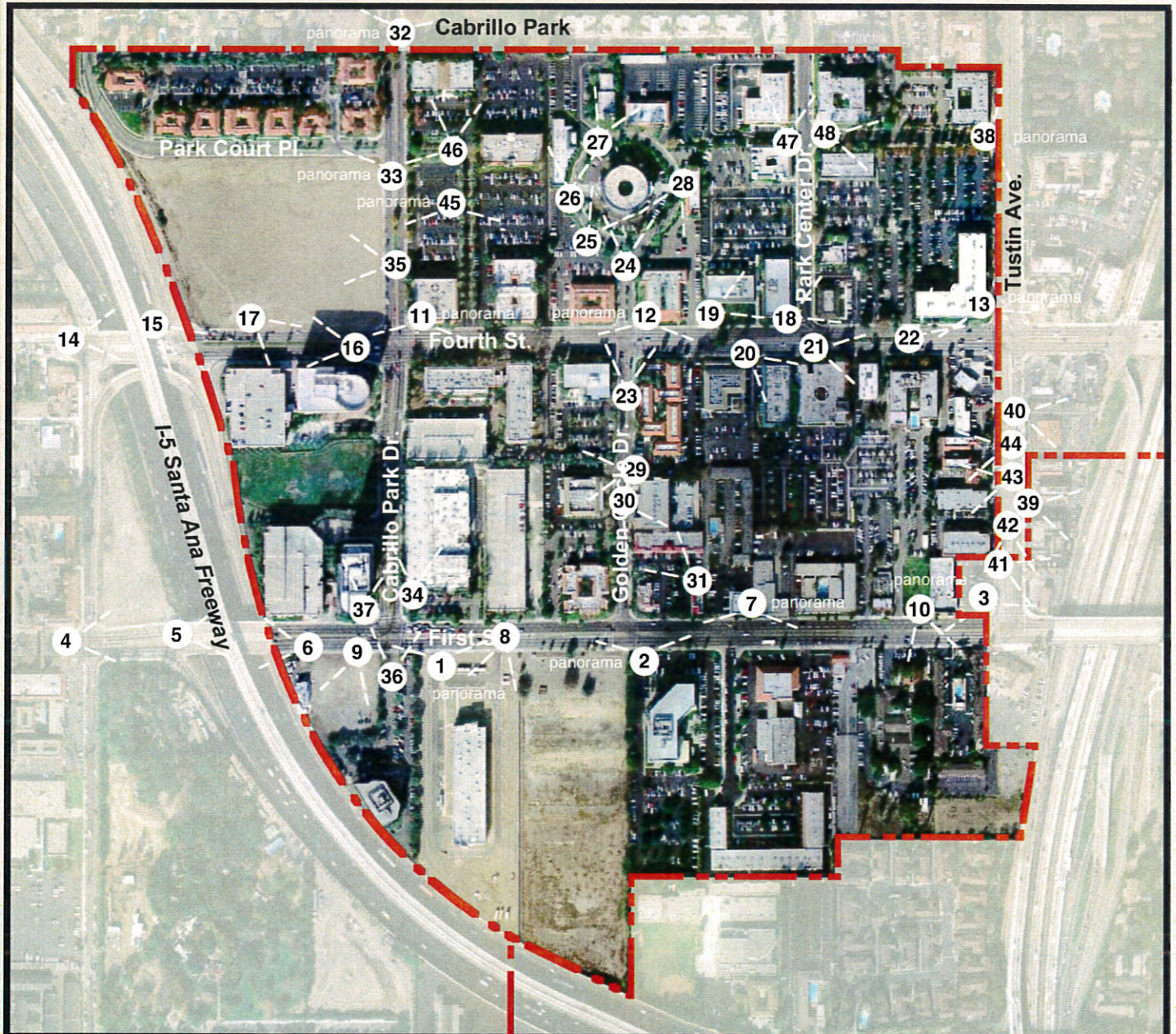
0 150 300 FT





## 2.0 Existing Conditions Photo Survey Locations

Urban Studio documented conditions in the field, the streets, sidewalks and open spaces that define the area's public resources. In general, district open space character has an incomplete sense of place with few fully realized streetscapes and little connectivity to the surrounding area.



### Key

- Study Area
- .-.- City Boundary

0 250 500 FT





## Existing Conditions First Street

First Street is automobile oriented. There is no sense of arrival or signage that marks the district. Street tree plantings are inconsistent and in many locations non-existent.



1 First Street and Cabrillo Park Drive Looking West to East



2 First Street and Golden Circle Drive Looking North



3 First Street and Tustin Avenue Looking North



## 2.2 Existing Conditions First Street (continued)

The First Street environment mainly addresses the functional requirements of the automobile.



4 First Street View East



5 First Street and Freeway Looking East



6 First Street View West to Freeway



2 First Street Panorama South Side



8 First Street South Side



9 First Street South Side



10 First Street South Side



## Existing Conditions Fourth Street

Fourth Street is the central east-west street that bisects the district, but has missed median opportunities and no sense of arrival from the surrounding area.



11 Fourth Street and Cabrillo Park Drive Looking East to West



12 Fourth Street and Golden Circle Drive Looking North



13 Fourth Street and Tustin Avenue Looking West to East



## Existing Conditions Fourth Street (continued)

Inconsistent street tree plantings along Fourth Street and underutilized landscaped medians provide little sense of identity.



14 Fourth Street Looking East to District



15 Fourth Street Looking South at Freeway



16 Fourth Street Looking West to Freeway Overpass



17 Fourth Street Looking South to Commercial Building



18 Fourth Street and Park Center Drive Looking East



19 Fourth Street Looking Northwest from Intersection on Golden Circle Drive



20 Fourth Street and Tustin Avenue Looking West to East



21 Fourth Street Looking Southeast at Golden Circle Drive



22 Fourth Street Looking East Towards Tustin Avenue



## Existing Conditions Golden Circle Drive

Golden Circle Drive is the main centrally located north-south street that serves the district.



23 Fourth Street Looking North at Golden Circle Drive



24 The Theme Building Looking North at Golden Circle Drive



25 The Theme Building from the Southwest



26 Golden Circle Drive: Western Section Looking North



27 Golden Circle Drive: Northern Section



28 Fourth Street Looking Northwest from Intersection with Golden Circle Drive



29 Golden Circle Drive West Side



30 Golden Circle Drive East Side



31 Golden Circle Drive East Side



# 2.6

## Existing Conditions Cabrillo Park Drive

Cabrillo Park Drive connects the existing uses to the major public amenity in the area, Cabrillo Park.



32 Cabrillo Park



33 Cabrillo Park Drive and Park Court Place



34 Cabrillo Park Drive  
East Side



35 Cabrillo Park Drive View to Freeway



36 Cabrillo Park Drive and First Street



37 Golden Circle Drive  
East Side



## Existing Conditions Tustin Avenue

Tustin Avenue provides a connection to the public bus transportation lines running north and south through Orange County.



38 Tustin Avenue and East 6th Street Looking North to South



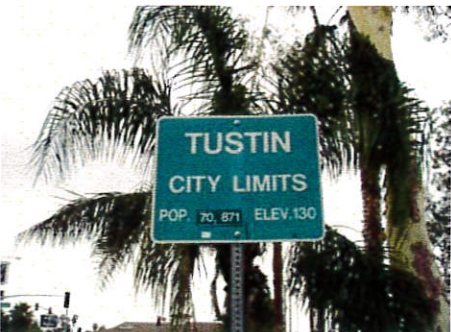
39 Tustin Avenue East Side



40 Tustin Avenue East Side



41 Tustin Avenue East Side



42 Tustin Avenue West Side



43 Tustin Avenue West Side



44 Tustin Avenue West Side



## 2.8

### Existing Conditions Tustin Avenue (continued)

Street lights along the eastern side of Tustin Avenue are infrequently placed.



47

Tustin Avenue East Side



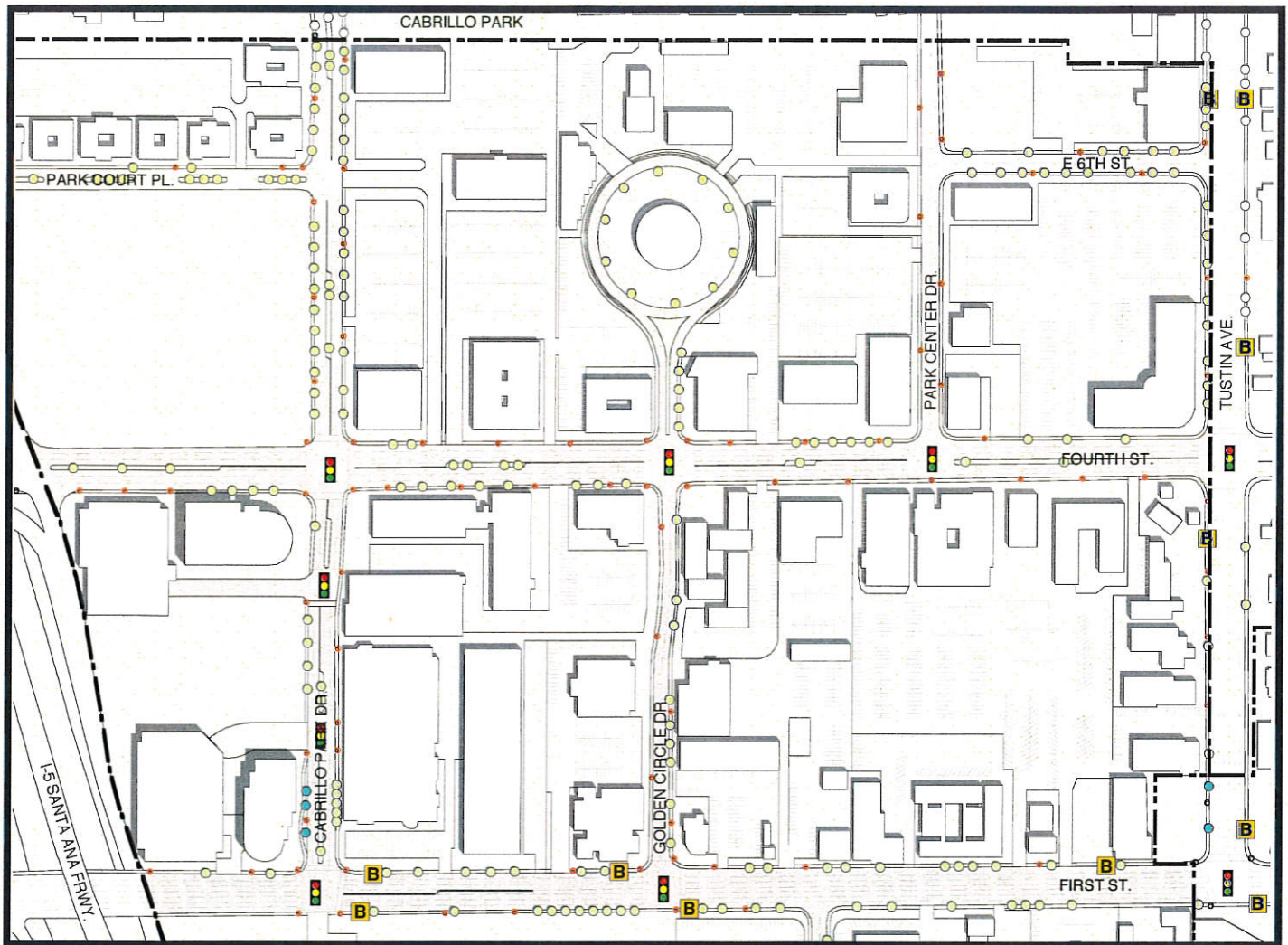
48

Tustin Avenue East Side



## Existing Conditions Base Map

The existing conditions of the Metro East district include limited street tree plantings, a lack of distinctive markers, and lighting oriented towards the automobile.



### Key

- |  |                            |  |                         |
|--|----------------------------|--|-------------------------|
|  | Study Area                 |  | Existing Street Lights  |
|  | City Boundary              |  | Existing Street Trees   |
|  | Bus Stops (Routes 64 & 71) |  | Existing Palm Trees     |
|  |                            |  | Signalized Intersection |

0 150 300 FT



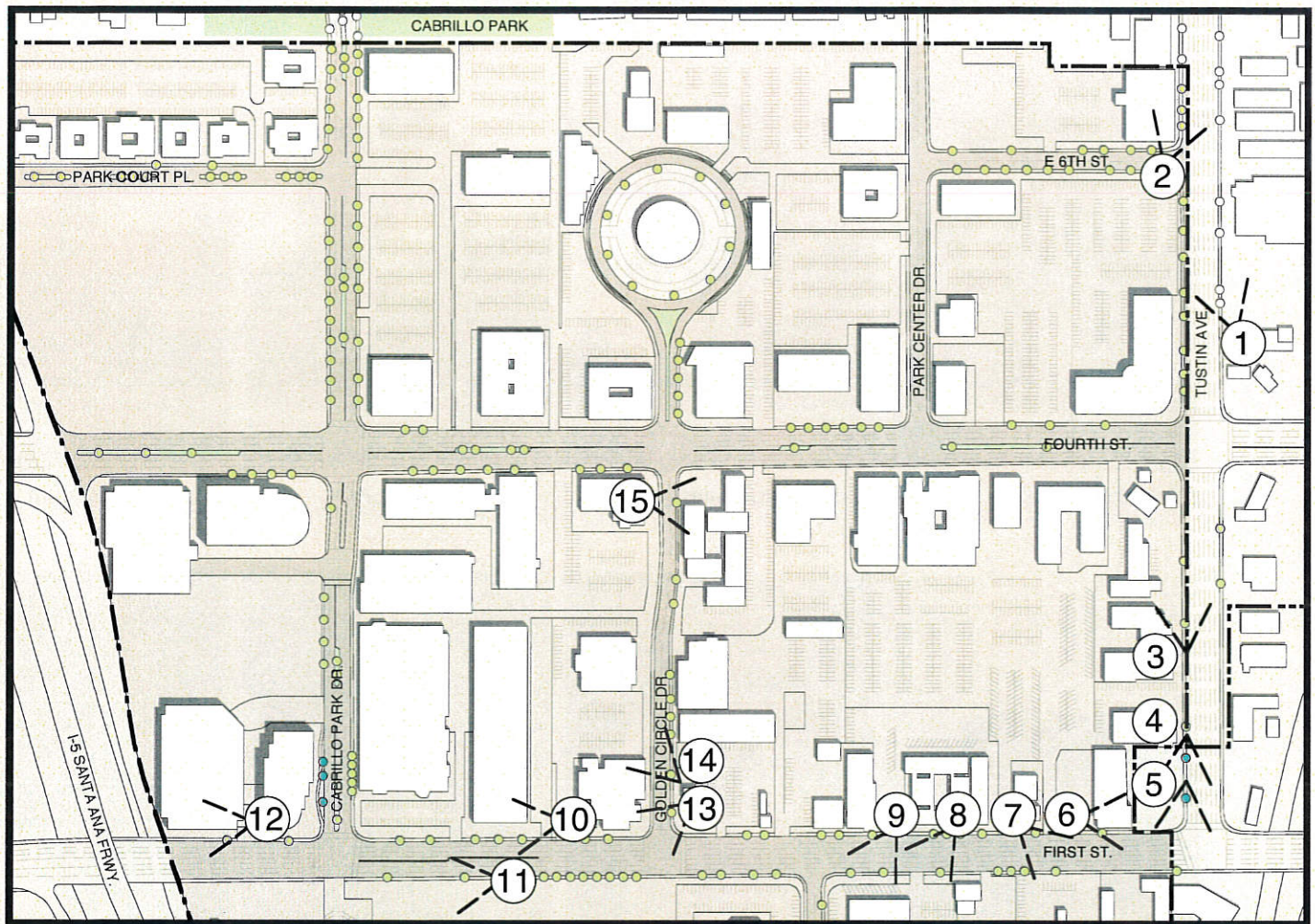
### Notes

- Existing bus stops along 1st Street and Tustin Avenue.
- Existing street trees vary in distance.
- Only existing street lights; no pedestrian lighting.



# 3.1 Existing District Street Tree Types

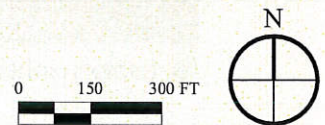
The existing trees along Tustin Avenue vary widely in species.



## Key

- Study Area
- City Boundary

- Existing Street Trees
- Existing Palm Trees



1 *Pyrus Kawakamii*



2 *Ligustrum Lucidum*



3 *Liquidambar*



4 *Syagrus Romanzoffianum*



## Existing District Street Tree Types

Along First Street, the predominant type of street tree is the *Leptospermum*.



5 Brahea Edulis



6 Leptospermum



7 Leptospermum



8 Leptospermum



9 Leptospermum



10 Leptospermum



11 Leptospermum



12 Leptospermum



13 Callistemon Citrinus



14 Callistemon Citrinus

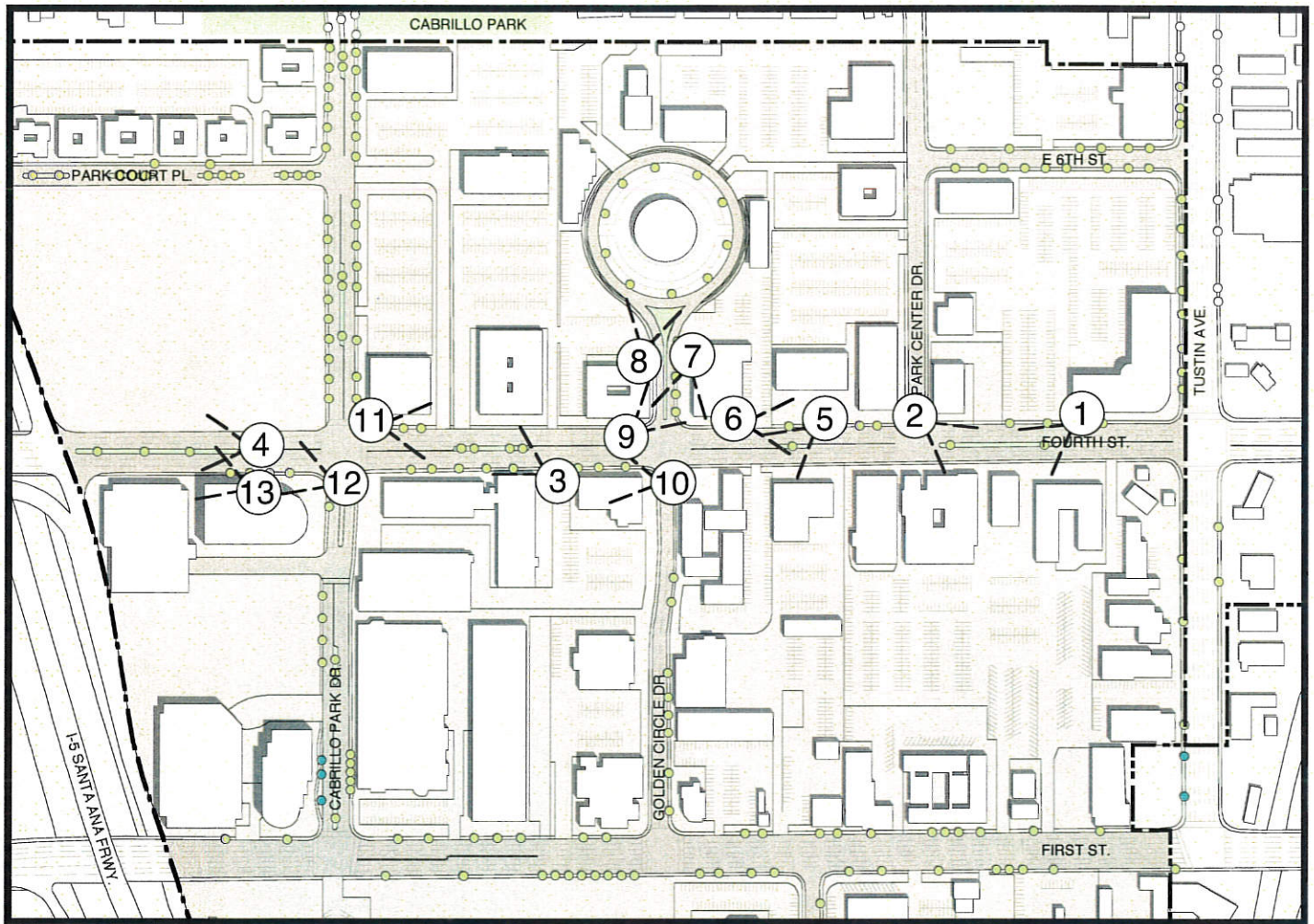


15 Callistemon Citrinus



### 3.3 Existing District Street Tree Types

Pinus Canariensis and the Ficus tree occur primarily along the existing medians.



#### Key

- Study Area
- .-.- City Boundary

- Existing Street Trees
- Existing Palm Trees

0 150 300 FT



1 Pinus Canariensis



2 Ficus



3 Ficus



## Existing District Street Tree Types

Long portions of sidewalk along Fourth Street contain little or no landscaping.



4 Pinus Canariensis



5 Ficus



6 Magnolia Grandiflora



7 Callistemon



8 Washingtonia/Queen  
Palm



9 Washingtonia



10 Magnolia Grandiflora



11 Magnolia Grandiflora



12 Platanus

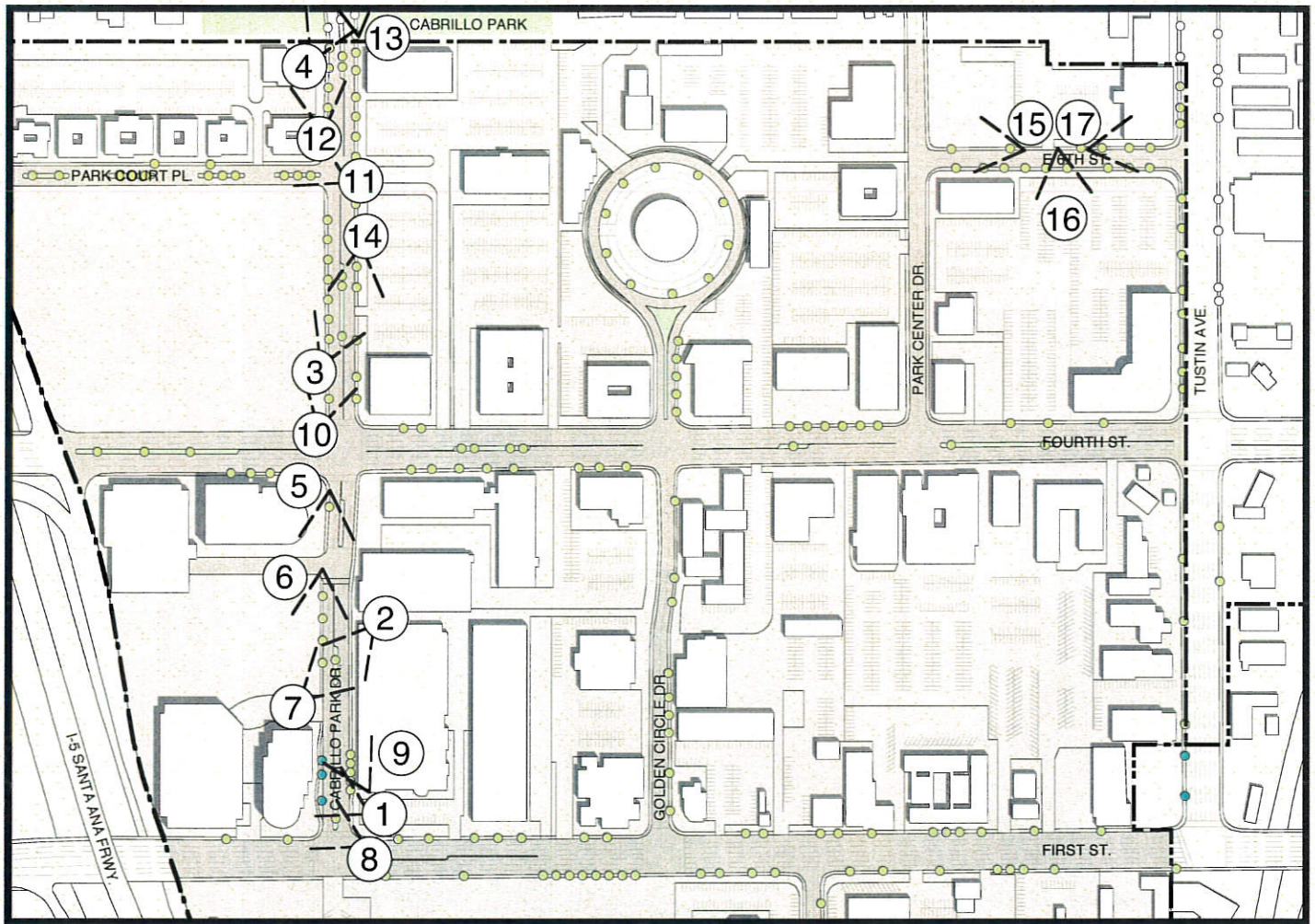


13



### 3.5 Existing District Street Tree Types

Lagerstroemia Indica is the existing median tree along Cabrillo Park Drive.



#### Key

- Study Area
- City Boundary

- Existing Street Trees
- Existing Palm Trees

0 150 300 FT



1 King Palms



2 Lagerstroemia Indica



3 Lagerstroemia Indica



## Existing District Street Tree Types

Platanus and Liquidambar trees define the street along Cabrillo Park Drive.



4 Lagerstroemia Indica



5 Platanus



6 Platanus



7 Platanus



8 Lagerstroemia Indica



9 Pinus Canariensis



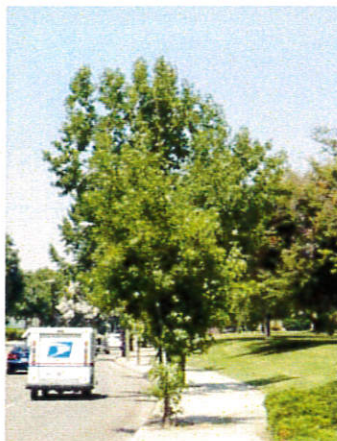
10 Platanus



11 Olea Eoropaea



12 Liquidambar



13 Liquidambar

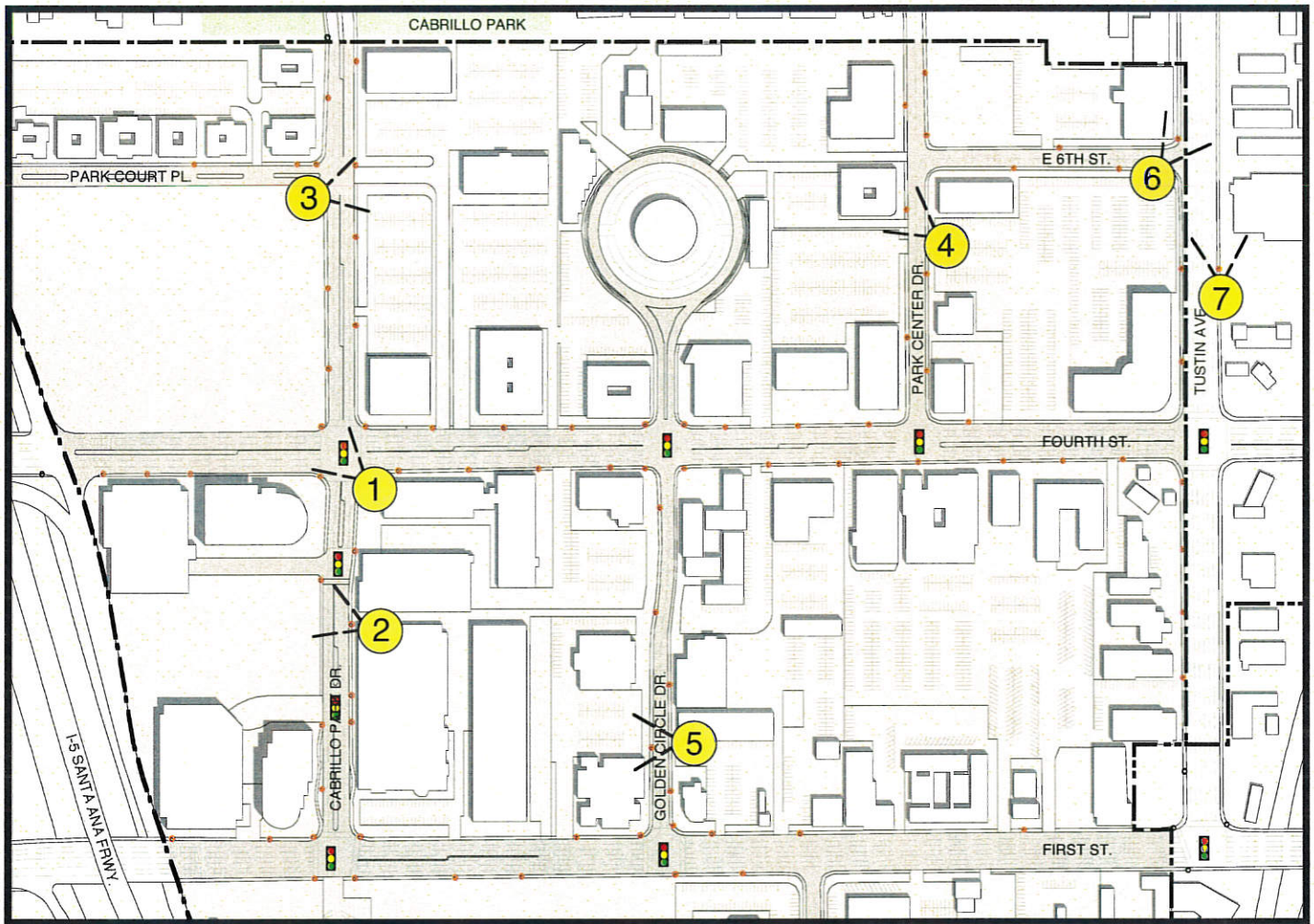


14 Liquidambar



## Existing Street Lights Locations and Types

All of the street light types in the area are cobrahead variants.



### Key

--- Study Area  
--- City Boundary

○ Existing Street Lights  
🚦 Signaled Intersection

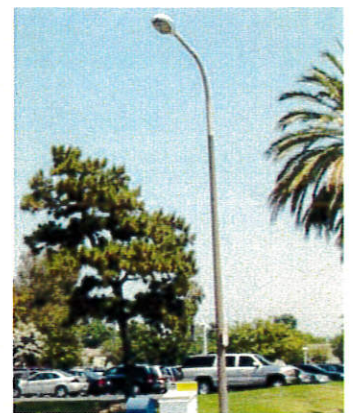
0 150 300 FT



1



2



3



## Existing Street Lights Locations and Types

Street lights along the First Street corridor are irregular.



4



5



6



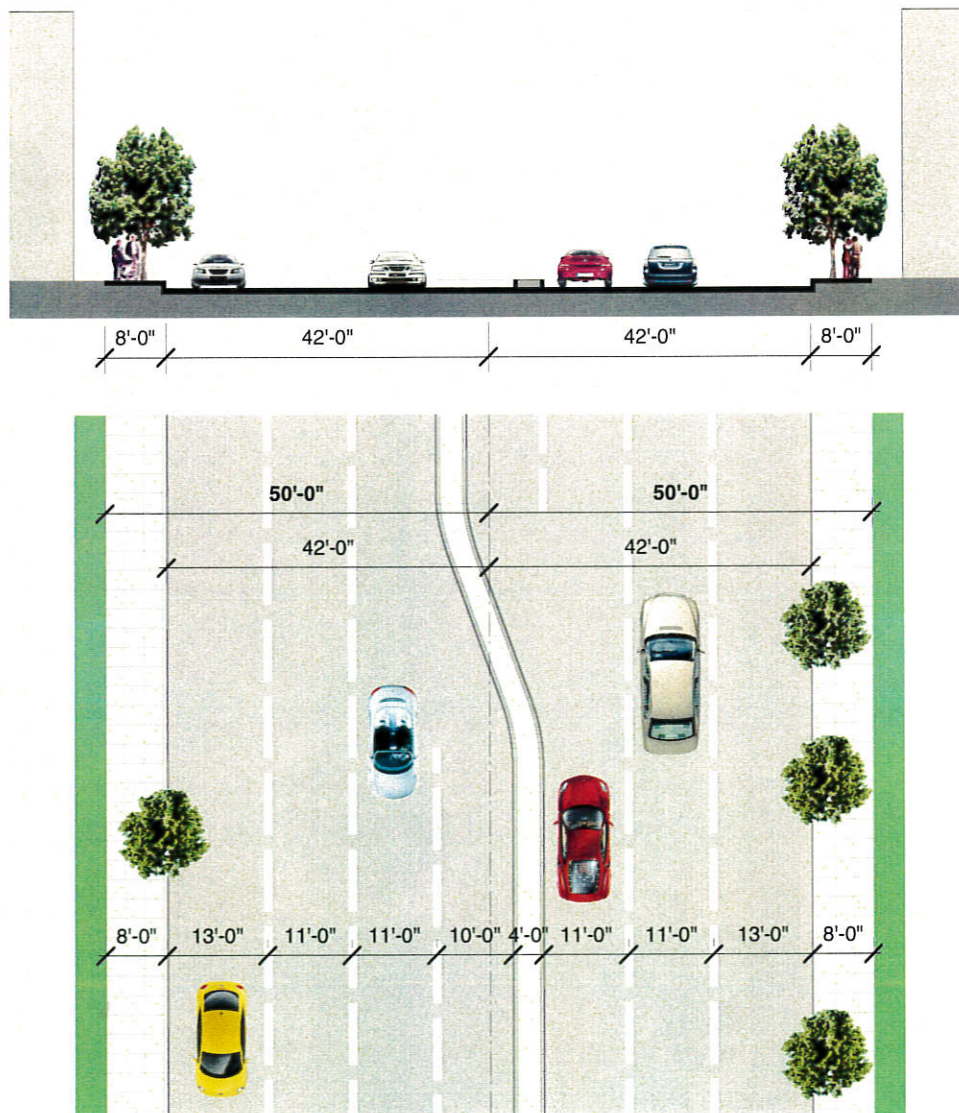
7



# 4.0

## Existing Streets Typical Plan and Section

Wide streets and inconsistent street lights provide low visibility for passing traffic and the surrounding environment.



A

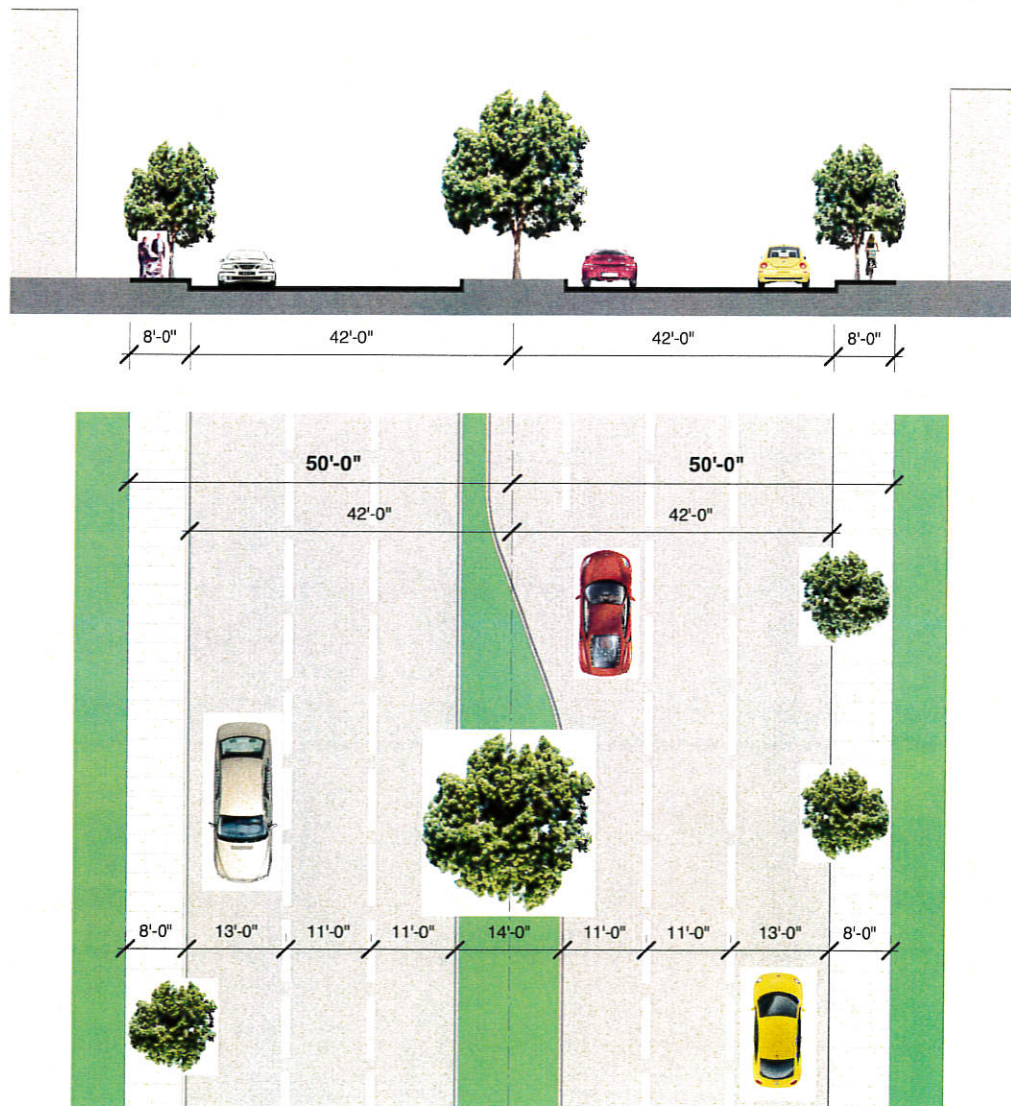
Main Traffic Corridor

Scale: 1"=25'



## Existing Streets Typical Plan and Section

The existing medians and sidewalks along Fourth Street are sparsely landscaped and make little use of the potential gateway qualities of this major street.



B

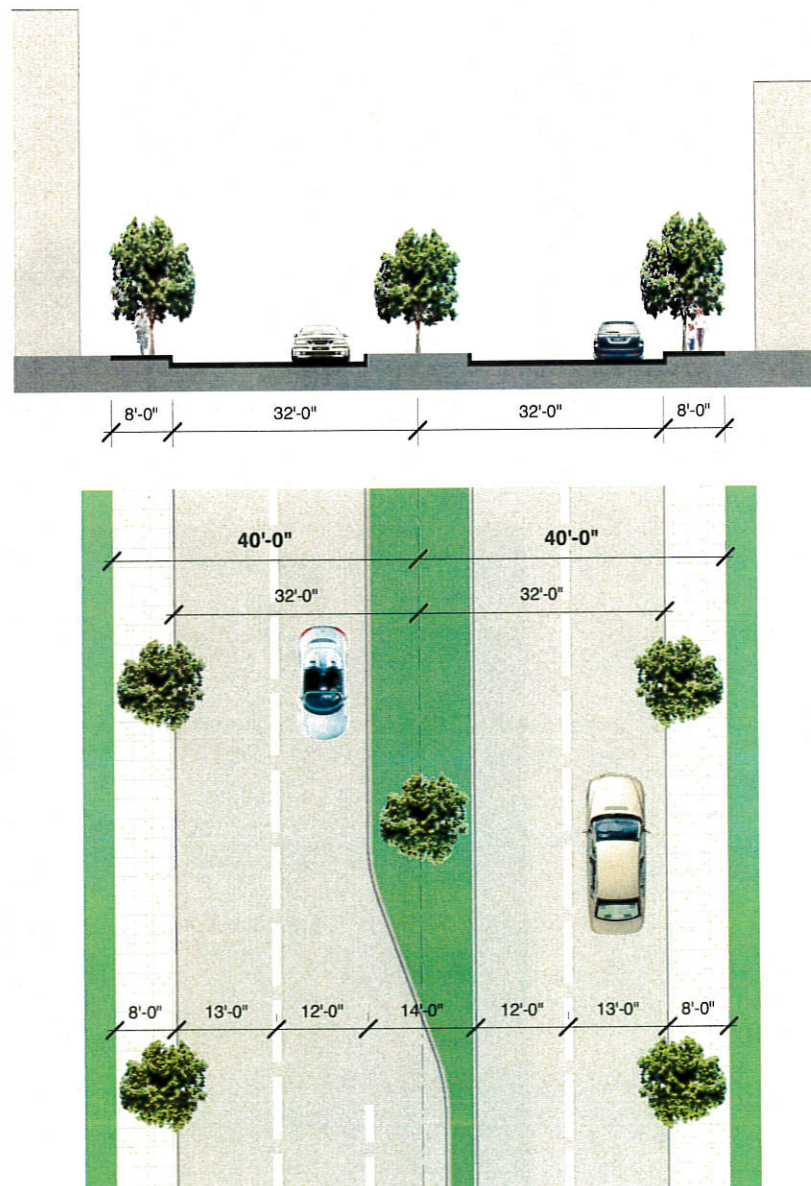
Central Street Corridor

Scale: 1"=25'



## 4.2 Existing Streets Typical Plan and Section

Cabrillo Park Drive maintains a fairly uniform row of street tree planting north of Fourth Street. However, the southern portion of the street breaks with the regularity.



C

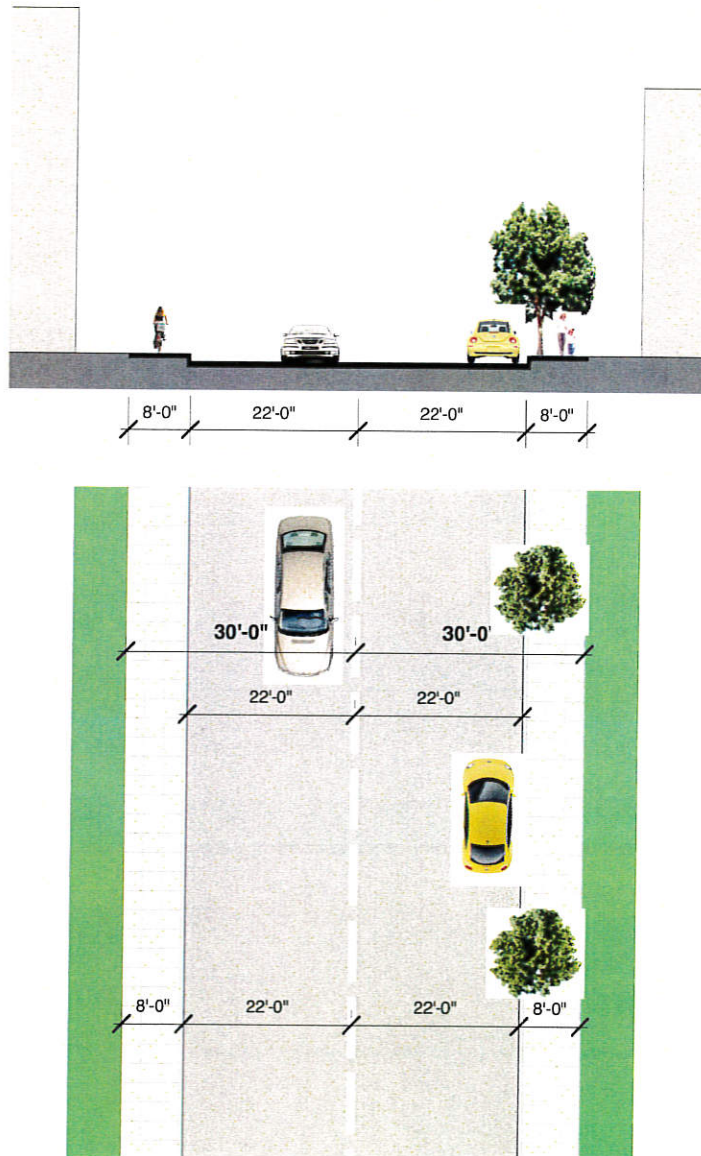
Typical Local Access Street

Scale: 1"=25'



## Existing Streets Typical Plan and Section

Golden Circle Drive is a narrow two lane street providing access from First to Fourth Street.



D

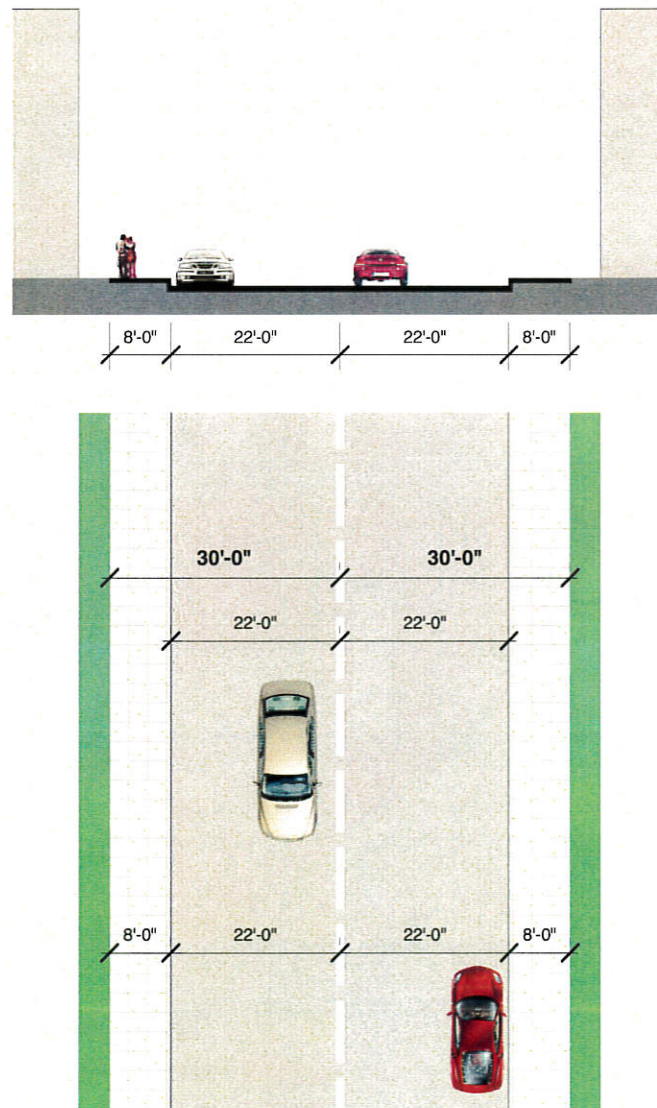
Typical Main Street

Scale: 1"=25'



## Existing Streets Typical Plan and Section

Street tree plantings along Park Center Drive are non-existent.



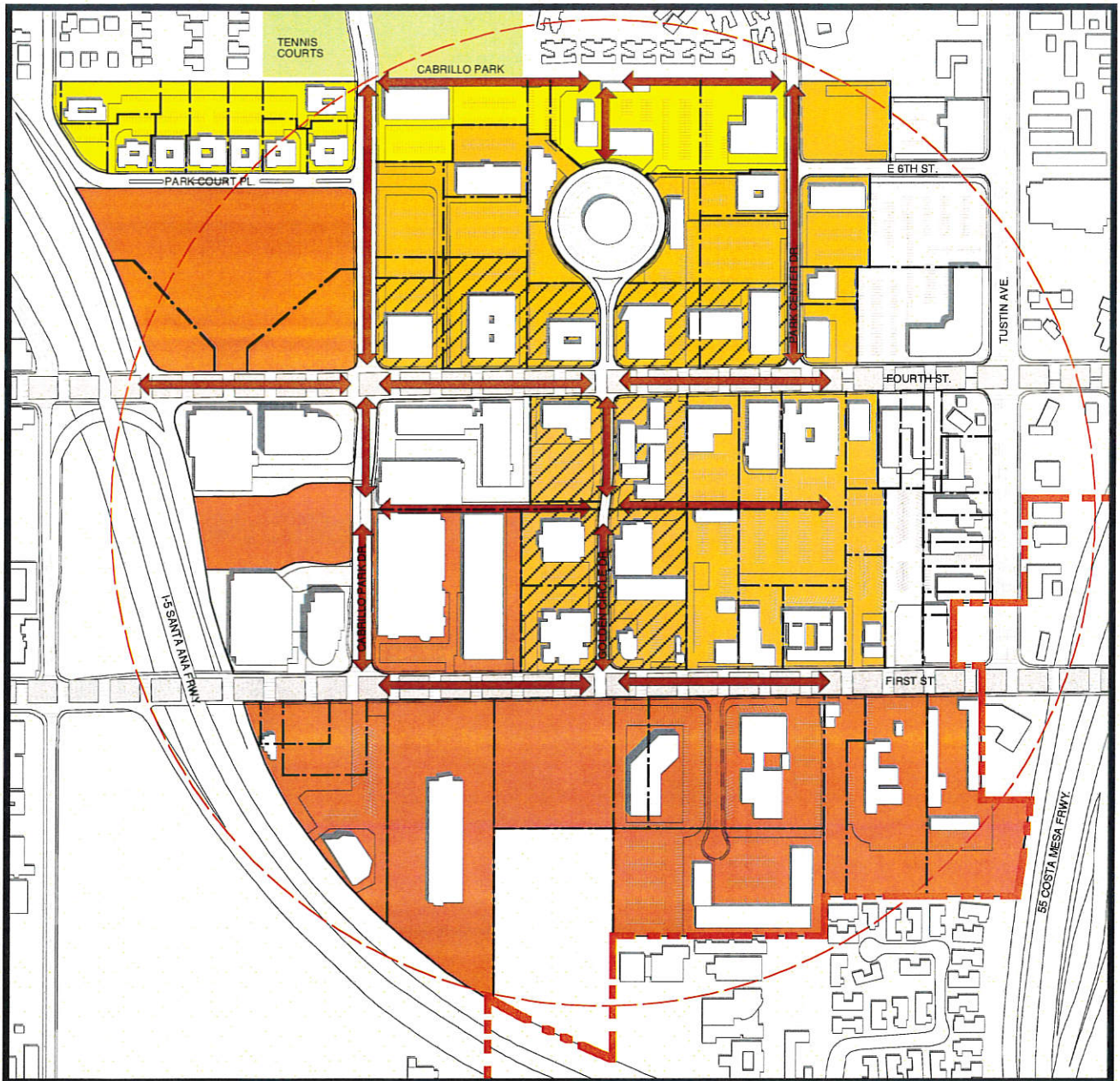
E

Secondary Local Access Streets

Scale: 1"=25'

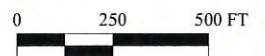
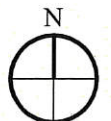


# MEMU Overlay Development Zone Districts



## Key

- Study Area
- City Boundary
- Existing Parcel Lines
- Improved Pedestrian and Bicycle Corridor
- ↔ Pedestrian Linkage
- 1,500 ft. Radius Walking Distance
- District 1: Neighborhood Transitional
- District 2: Village Center
- District 3: Active Urban
- Pedestrian-Oriented Uses on Ground Level
- Existing Office Uses





# 5.1

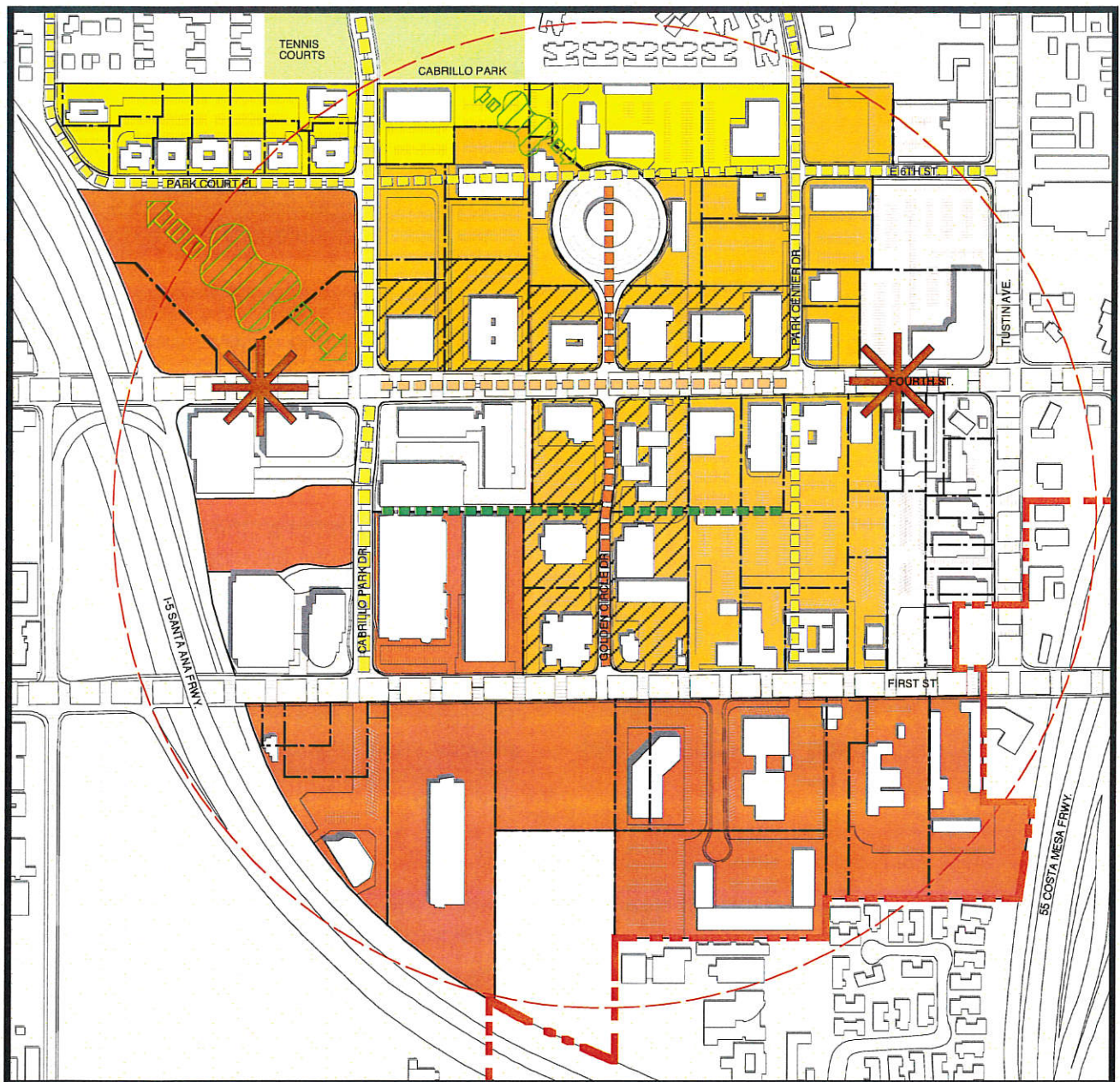
## MEMU Overlay Development Zone District Descriptions

	District 1 <b>Neighborhood Transitional</b>	District 1 is intended to provide opportunities for low-intensity development that acts as a transition between the single-family residential to the north and the adjacent high-intensity Active Urban District.
	District 2 <b>Village Center</b>	District 2 is intended to serve as the focal point and central gathering place in well-designed highly connected development sites and public sites.
	District 3 <b>Active Urban</b>	District 3 is intended as the location for well-designed high rise mixed-use developments in a highly urbanized environment.
	<b>Pedestrian-Oriented Uses on Ground Level</b>	Pedestrian-oriented uses are intended to generate pedestrian activity and provide uses that are neighborhood serving and contribute to an active street life.
	<b>Existing Office Uses</b>	Existing office uses include low and high rise office development along Tustin Avenue and the Santa Ana (I-5) Freeway Corridor.



## Public Realm Concept

The proposed public realm amenities will enhance the pedestrian scale and quality of living in the area.



### Key

- Study Area
- City Boundary
- Existing Parcel Lines
- ✱ Gateway Opportunities
- Main Traffic Corridors
- Local Access Streets (existing & new)
- Central Street Corridor
- Main Street
- Alley Street with Pedestrian Orientation

- District 1: Neighborhood Transitional
- District 2: Village Center
- District 3: Active Urban
- Pedestrian-Oriented Uses on Ground Level
- Existing Office Uses
- 🌳 Open Space/Pedestrian Linkage Component
- 1,500 ft. Radius Walking Distance

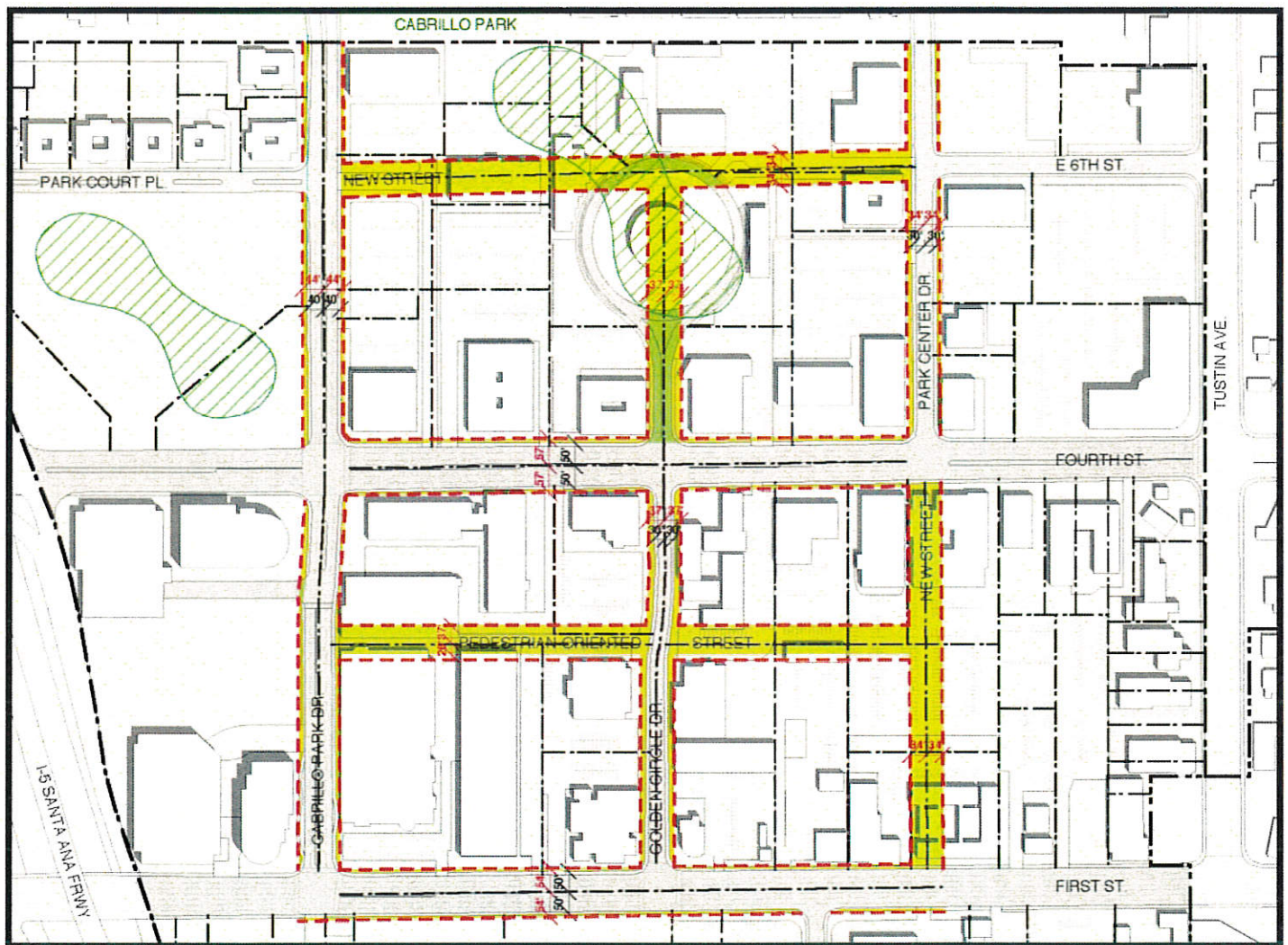


0 250 500 FT



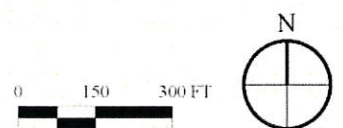
## Proposed Easements

By allowing for greater easements, this plan provides an opportunity to create a walkable environment and a friendly pedestrian atmosphere.



### Key

- Study Area
- City Boundary
- Existing Parcel Lines
- Setback Lines
- Existing Streets
- Additional Setback Easements
- Public Open Space



### Notes

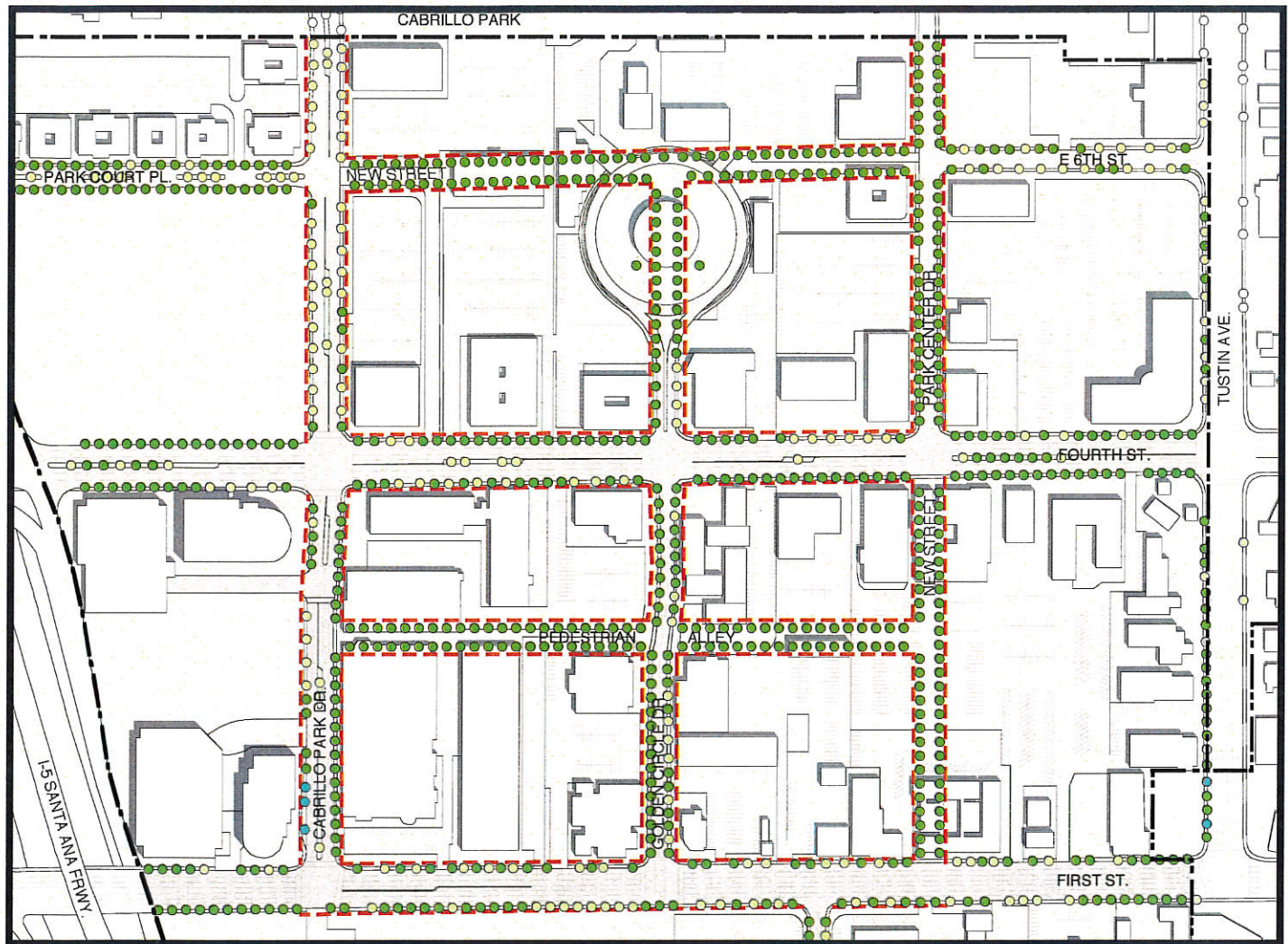
- Minimum 35,000 SF of public open space including roads shall be created within this area.
- NEW and EXISTING Dimensions from Center of Right-of-Way.





## Improved Condition Base Map Street Trees

Consistent street tree plantings throughout the district provide a coherent visual identity and an attractive streetscape for visitors, workers, and residents.



### Key

- Study Area
- City Boundary
- Setback Lines
- Existing Street Trees
- Existing Palm Trees
- New Street Trees

0 150 300 FT



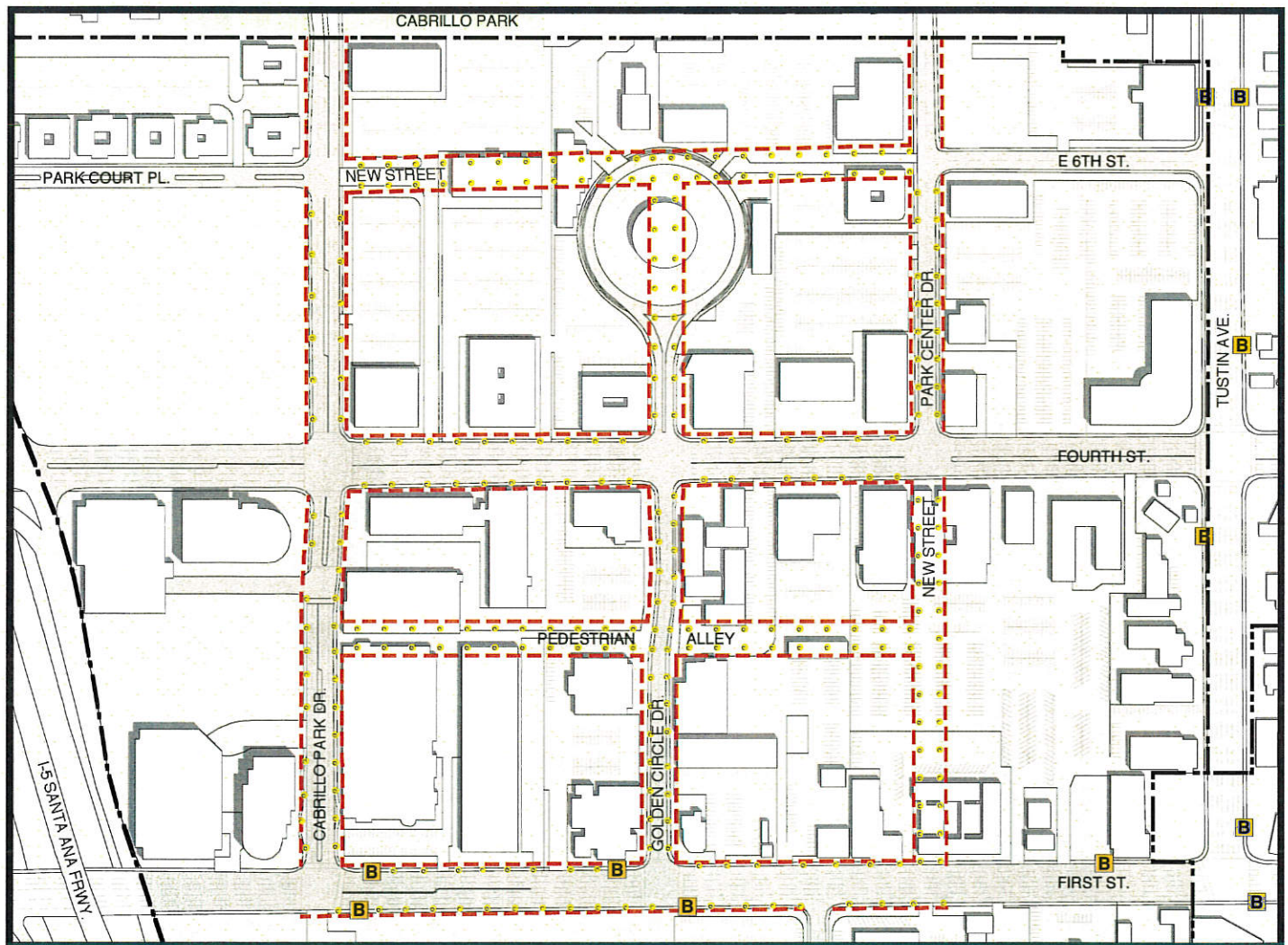
### Notes:

- New street trees should average 30' on center.
- Flowering trees at medians create seasonal color.



## Improved Condition Base Map Pedestrian Street Lighting

Regular pedestrian street lighting throughout the district increases night-time visibility and safety for pedestrians.



### Key

- Study Area
- City Boundary
- Setback Lines

- B Bus Stops (Routes 64 & 71)
- New Pedestrian Street Lights

0 150 300 FT



### Notes

- Pedestrian lightpoles in the Central Area every 60 ft.



## Improved Streetscape Typical Plan and Section

District signage and flowering trees mark Fourth Street as the major gateway into the district.

### Improvements:

- District signage & identity with flowering trees at remainder of median
- 10' vs. 8' sidewalk
- 5' parkway at curb

### Infill:

- Magnolia Grandiflora or similar at  $\pm 30'$  o.c. along sidewalk
- Pinus Canariensis or similar at  $\pm 30'$  o.c. on median
- Pyrus Kawakamii or similar at  $\pm 30'$  o.c. on median



*Pyrus Kawakamii*



*Magnolia Grandiflora*

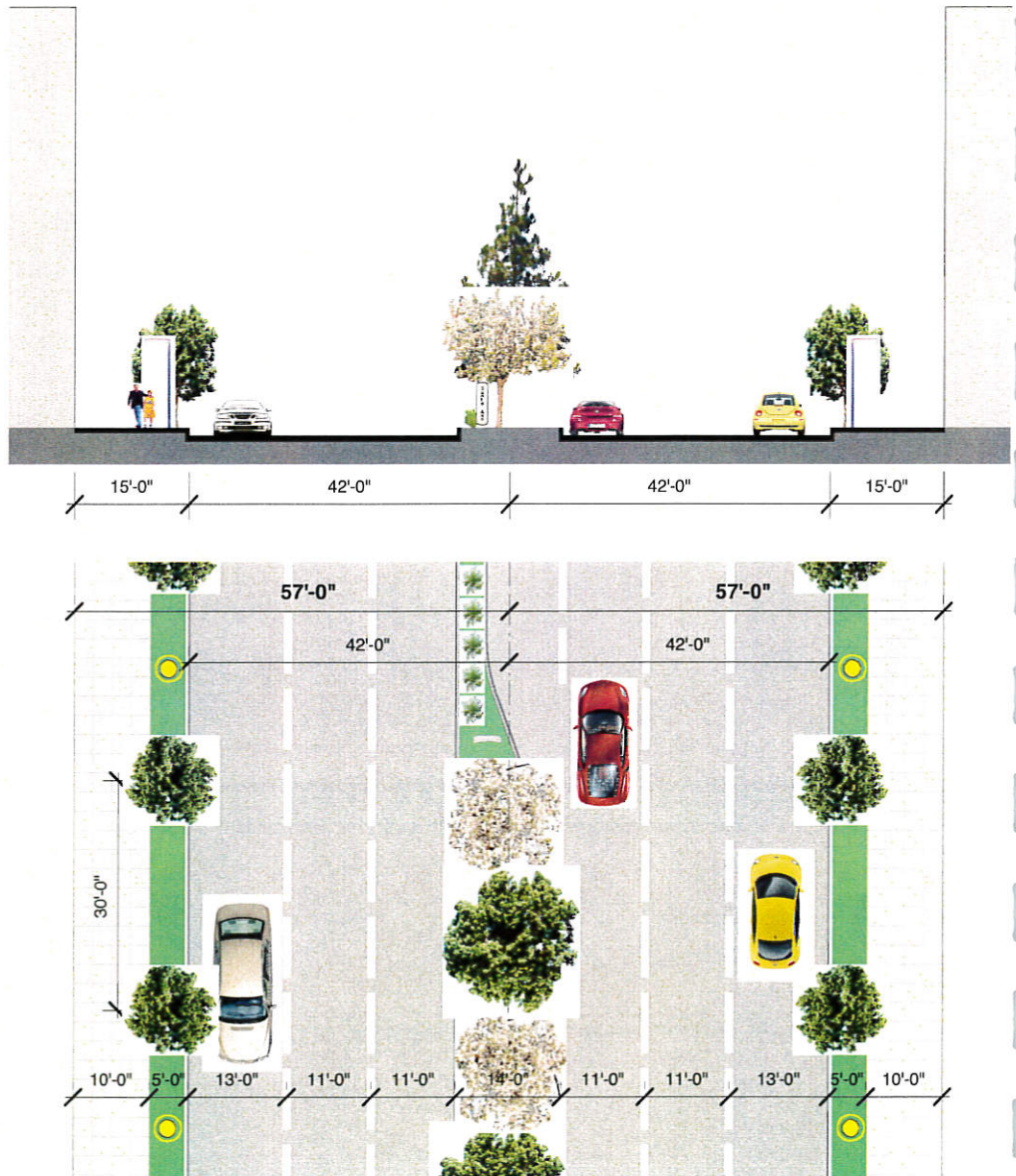
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



F

### Gateway Condition

Scale: 1"=25'



# 7.1

## Improved Streetscape Typical Plan and Section

Wider sidewalks in conjunction with the parkway enhance the overall quality of the urban environment for both pedestrians and automobiles.

### Improvements:

- 10' vs. 8' sidewalk
- 5' parkway at curb
- New pedestrian light poles at  $\pm 60'$  o.c. along sidewalk

### Infill:

- Magnolia Grandiflora or similar at  $\pm 30'$  o.c. along sidewalk
- Pinus Canariensis or similar at  $\pm 30'$  o.c. on median



*Magnolia Grandiflora*

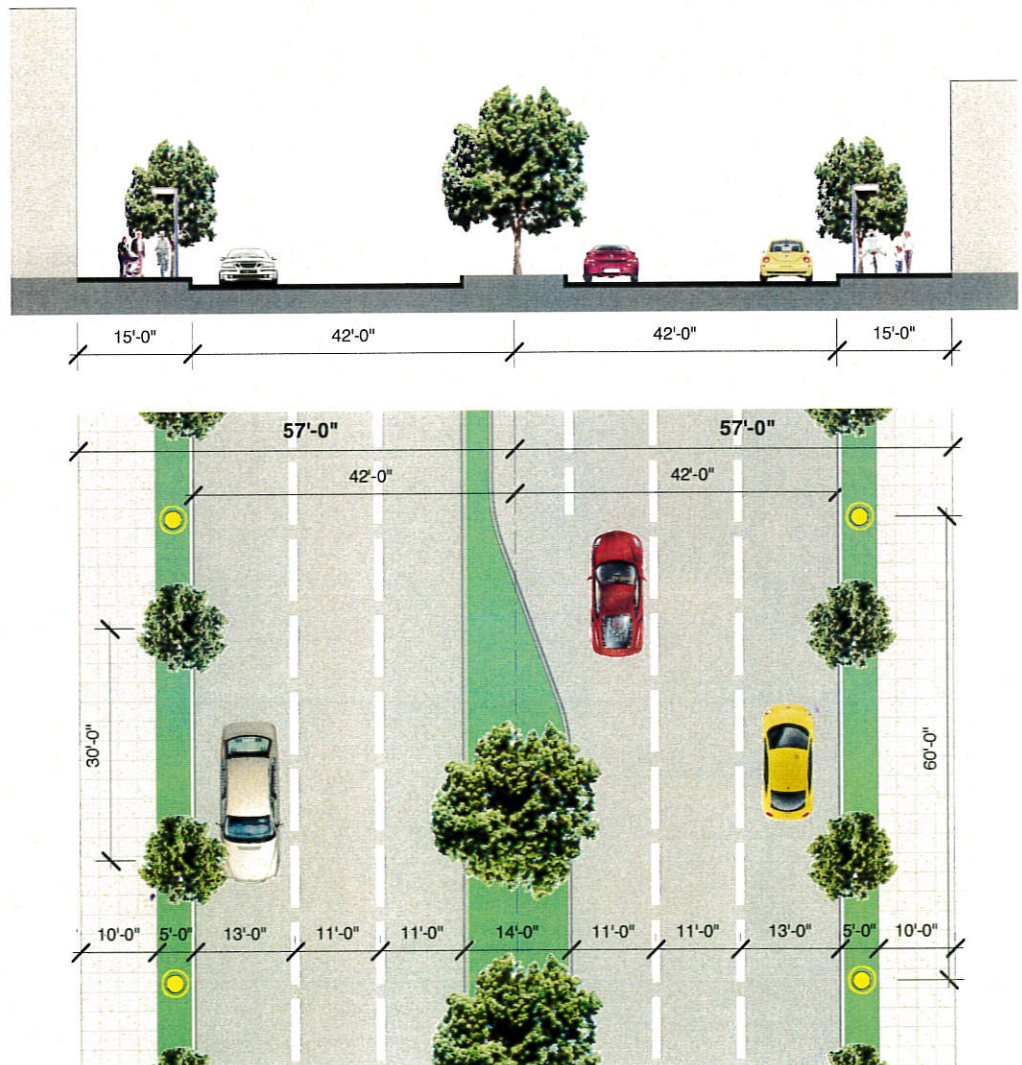
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



B

Central Street Corridor

Scale: 1"=25'



## Improved Streetscape Typical Plan and Section

Decorative paving and pedestrian scaled lighting place an emphasis on the walkable nature of the district.

### Improvements:

- One lane in each direction with parking on both sides
- 8' sidewalk
- 4' parkway at curb
- Pedestrian light poles at  $\pm$  60' o.c. in line with trees

### Infill:

- Liquidambar or similar at  $\pm$  30' o.c. along sidewalk



*Liquidambar*

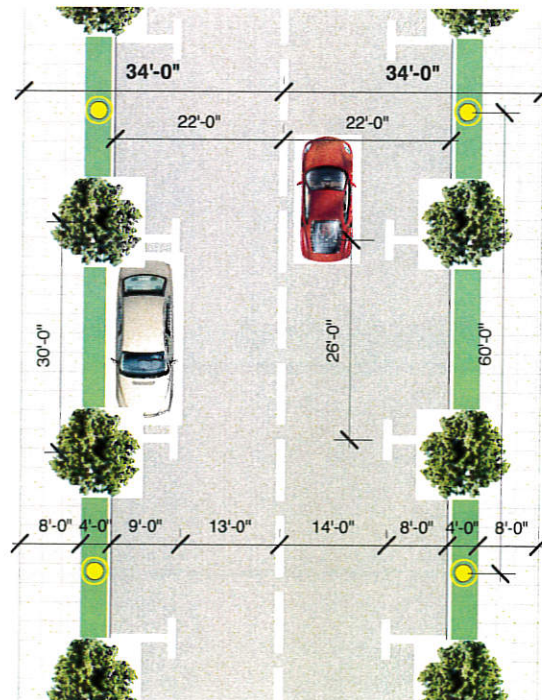
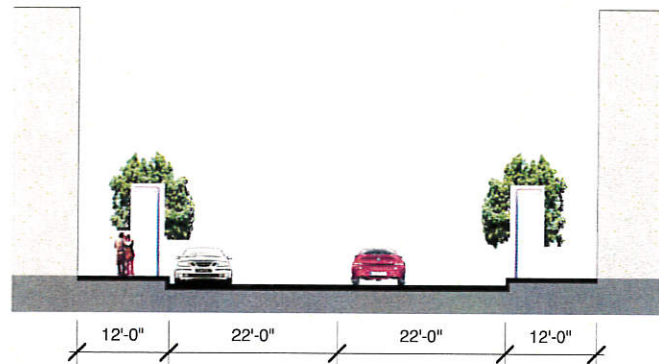
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



E

### Secondary Local Access Streets

Scale: 1"=25'



# 7.3

## Proposed Streetscape Typical Plan and Section

Greater allowances for the parkway provide a physical buffer between pedestrians and automobile traffic. In turn, this buffer increases the comfort level for pedestrians.

### Improvements:

- 8' sidewalk
- 4' parkway at curb
- Pedestrian light poles at  $\pm$  60' o.c. in line with trees

### Infill:

- Leptospermum or similar at  $\pm$  30' o.c. along sidewalk
- Pyrus Kawakamii or similar at  $\pm$  30' o.c. along sidewalk



*Leptospermum*

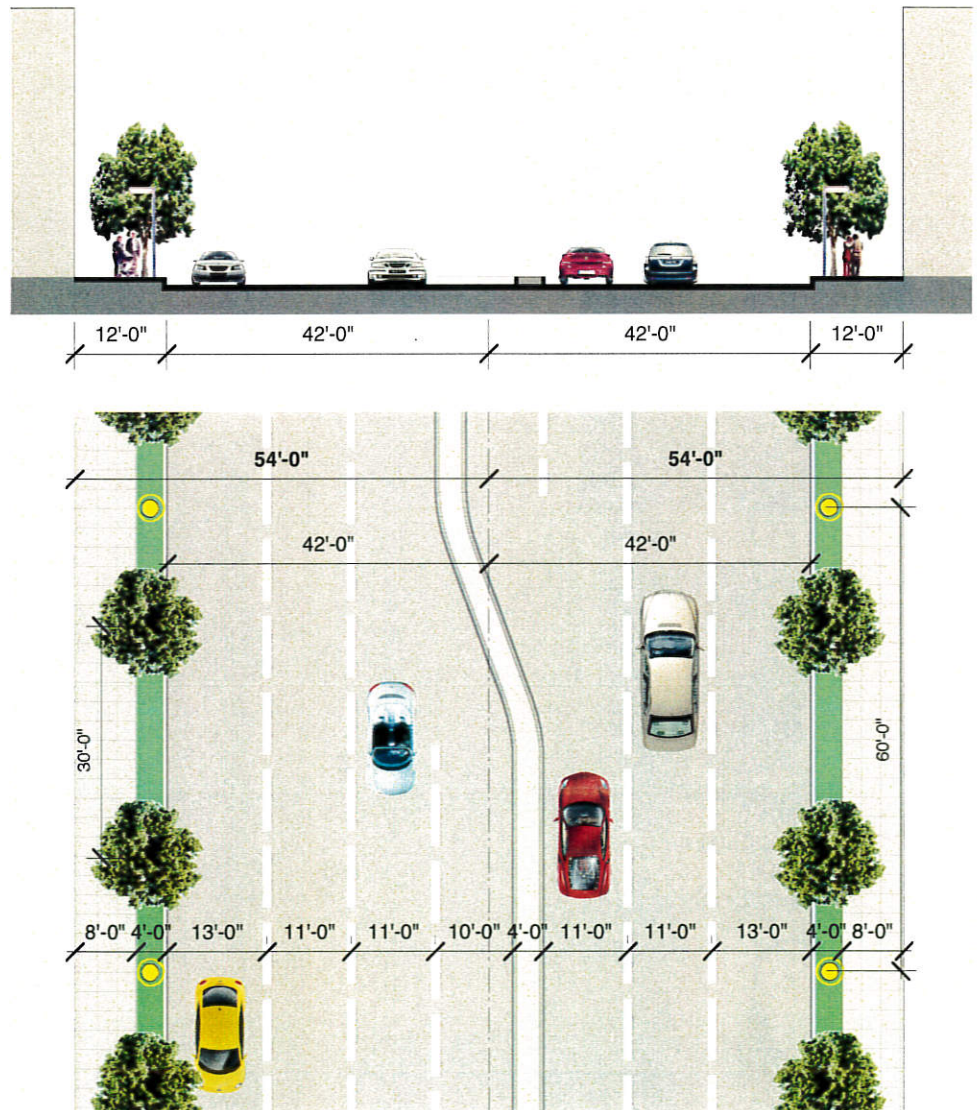
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



A

Main Traffic Corridor

Scale: 1"=25'



## Proposed Streetscape Plan and Section

A variety of trees located at the curb and the median give the street a diverse range of colors and textures as the seasons progress.

### Improvements:

- 8' sidewalk
- 4' parkway at curb
- New pedestrian light poles at  $\pm 60'$  o.c. in line with trees

### Infill:

- Platanus or similar at  $\pm 30'$  o.c. along sidewalk
- Pyrus Kawakamii or similar at  $\pm 30'$  o.c. along median
- Lagerstroemia Indica or similar at  $\pm 20'$  o.c. along median



*Pyrus Kawakamii*



*Platanus*

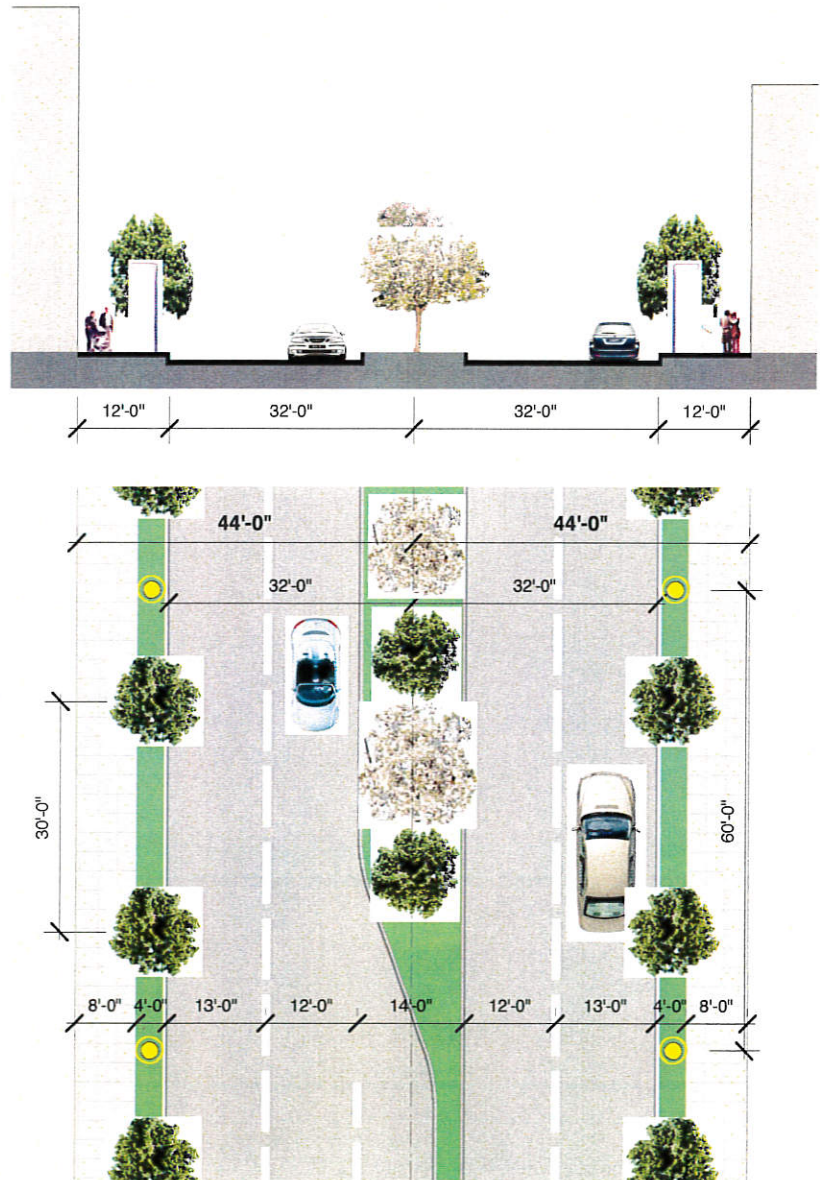
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



**C** Typical Local Access Street  
Scale: 1"=25'



# 7.5

## Proposed Streetscape Typical Plan and Section

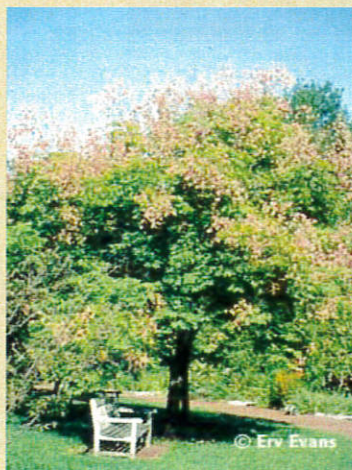
Generous decoratively paved sidewalks provide a textured surface and visual appeal for the area.

### Improvements:

- 15' decorative paved sidewalk
- Pedestrian light poles at  $\pm$  60' o.c. in line with trees

### Infill:

- Koelreuteria Bipinnata or similar at  $\pm$  30' o.c. along sidewalk



*Koelreuteria Bipinnata*

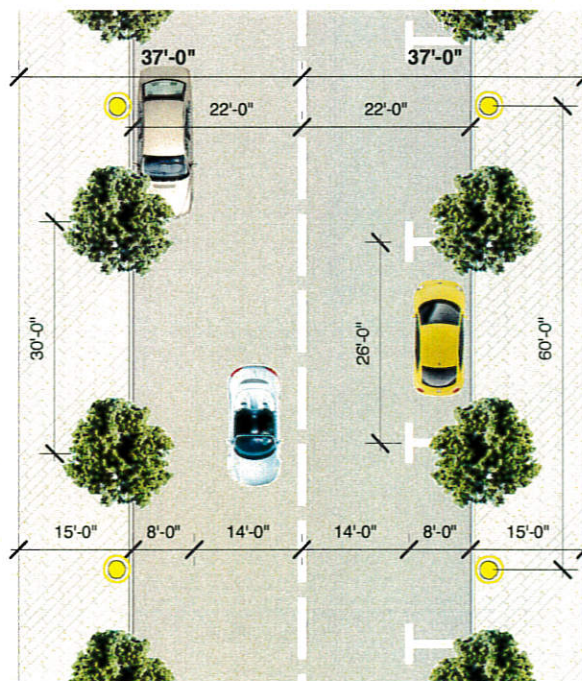
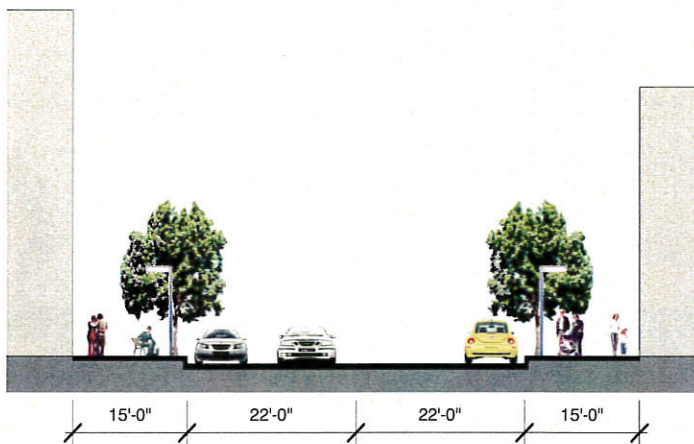
### Pedestrian Light Poles:



Alternative 1



Alternative 2



D Typical Main Street  
Scale: 1"=25'



## Proposed Streetscape Typical Plan and Section

Located between First and Fourth Street, the pedestrian-oriented street creates a natural gathering place for the community.

### Improvements:

- 37' decorative paved street with pedestrian orientation
- Bollards 5' from one-way alley at  $\pm 10'$  o.c.
- Pedestrian light poles at  $\pm 60'$  o.c. in line with trees

### Infill:

- Koelreuteria Bipinnata 21' from curb  $\pm 30'$  o.c.



*Koelreuteria Bipinnata*

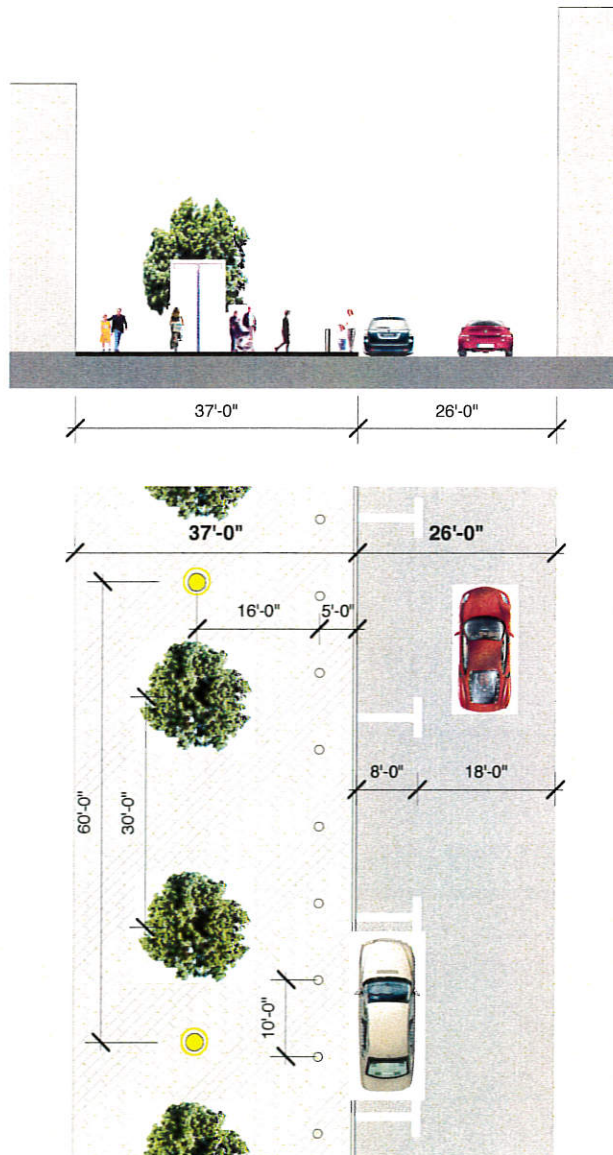
### Pedestrian Light Poles:



*Alternative 1*



*Alternative 2*



G

### Pedestrian-Oriented Street

Scale: 1"=25'



# Metro East Public Realm Amenity Plan

## Cost Estimate

### METRO EAST PUBLIC REALM AMENITY PLAN UNIT COST ESTIMATE FOR AMENITY IMPROVEMENTS

	Unit Type	Unit Cost	Number of Units	Improvement Cost	Notes
(N) Roadways (acquisition)					cost of development
(N) Roadways (construction)					cost of development
(N) Sidewalks (acquisition)					cost of development
(N) Sidewalks (construction)					cost of development
(N) Paved Sidewalks @ Golden Circle Drive	square feet	\$16	35,000	\$560,000	
(N) Paved Surface at (N) Alley				-	cost of development
(N) Public Open Space (acquisition)	square feet	\$125	43,500	\$5,437,500	assumes purchase of approximately one acre of new open space in district
(N) Public Open Space (hardscape and softscape)	square feet	\$20	43,500	\$870,000	assumes improvement of one acre of new open space
(N) Parkways (landscape improvements)				-	cost of development
Medians (hardscape and softscape improvements)	square feet	\$6	23,500	\$141,000	
Irrigation	square feet	\$3	23,500	\$70,500	allowance
(N) Trees (evergreen, deciduous, and flowering)	each	\$1,000	800	\$800,000	
(N) Tree Guards	each	\$1,000	100	\$100,000	Golden Circle Drive only
(N) Tree Grates	each	\$1,000	100	\$100,000	Golden Circle Drive only
(N) Pedestrian Street Lighting / Poles	each	\$3,500	275	\$962,500	
(N) Bollards	each	\$750	200	\$150,000	
(N) Trash Receptacles	each	\$750	100	\$75,000	
(N) Benches	each	\$1,250	100	\$125,000	
(N) Bicycle Racks	each	\$1,250	100	\$125,000	
(N) Newspaper Racks	each	\$1,000	20	\$20,000	
(N) Bus Shelters	each	\$30,000	7	\$210,000	allowance
(N) Wayfinding / District Identity	each	\$250,000.00		\$250,000	allowance
Gateway Monuments	each	\$25,000.00	2	\$50,000	allowance
Water Features / Fountains	each	\$50,000.00	4	\$200,000	allowance

#### Subtotal Unit Costs

**\$10,246,500**

includes Contractor O & P

#### Contingency @

20%

**\$2,049,300**

#### Engineering and Design @

5%

**\$614,790**

#### Construction Management @

5%

**\$614,790**

#### Subtotal Metro East Public Real Amenity Costs

**\$13,525,380**

#### Assume Inflation During Project Duration @

20%

**\$2,705,076**

#### Metro East Public Realm Amenity Costs

**\$16,230,456**